CLAIM AMENDMENTS

Claims 1 through 16 (canceled)

17. (Currently amended) A method of making a cryogenic solid monergole propellant out of a heterogeneous liquid-solid propellant, from reactants at least one of which is ~~an oxidizer or~~ a fuel and an oxidizer which contains a phase that is liquid or gaseous at standard temperature, which comprises the steps of:

(a) incorporating at least one liquid or gaseous phase reactant in the form of ~~a fuel or~~ an oxidizer in a solid phase structure, open pore plastic foam fuel, having hollow spaces which are connected to each other; and

(b) transforming the liquid or gaseous phase oxidizer incorporated in the solid phase structure, open pore plastic foam fuel, having hollow spaces connected to each other by freezing the liquid or gaseous phase into a stable cryogenic solid phase below standard temperature within the hollow spaces of the solid phase structure, open pore plastic foam fuel, inside [[the]] a combustion chamber to obtain a rocket propellant with improved storability while avoiding the need for liquid management and simultaneously eliminating need for permanent ignition thereof.

18. (previously presented) The method of making a cryogenic solid monergole propellant defined in claim 17 wherein

the at least one liquid or gaseous phase reactant is an emulsion of liquid components which are not soluble in one another.

19. (previously presented) The method of making a cryogenic solid monergole propellant defined in claim 17 wherein the at least one liquid or gaseous phase reactant is a suspension of solid components in liquid components or liquid impregnated bulk materials or packings.

20. (Canceled)

21. (Canceled)

22. (Currently amended) The method of making a cryogenic solid monergole propellant defined in ~~claim 21~~ claim 17 wherein the ~~foam of plastic or metal~~ open pore plastic foam fuel is a polyethylene foam, a polyurethane foam, a HTBP foam, or a GAP foam ~~, an aluminum foam, a magnesium foam, a beryllium foam, or a mixture of said plastic foam and said metal foam~~.

23. (Currently amended) The method of making a cryogenic solid monergole propellant defined in claim 17 wherein the solid phase structure, open pore plastic foam fuel, having hollow spaces is a packing incorporated in a casting material and composed of [[a]] polyethylene, polyurethane, HTPB, or GAP ~~, AP, aluminum, magnesium or beryllium~~.

24. (Previously presented) The method of making a cryogenic solid monergole propellant defined in claim 17 wherein according to step (a) the liquid phase is incorporated in the solid phase structure by immersion and/or impregnation thereof.

25. (Previously presented) The method of making a cryogenic solid monergole propellant defined in claim 17 wherein according to step (a) the liquid or gas phase reactant is oxygen, a hydrocarbon, hydrogen peroxide or an HEDM propellant.

26. (Currently amended) The method of making a cryogenic solid monergole propellant defined in claim 17 wherein according to step (b) the solid monergole propellant is produced by freezing liquid ~~fuel or~~ oxidizer.

27. (Currently amended) The method of making a cryogenic solid monergole propellant defined in claim 26 wherein the liquid ~~fuel or~~ oxidizer is oxygen, a hydrocarbon, hydrogen peroxide or an HEDM propellant.

28. (Currently amended) The method of making a cryogenic solid monergole propellant defined in claim 17 wherein according to step (a) the liquid phase is initially encapsulated, then mixed with the solid phase structure and bonded with the binder.

29. (previously presented) The method of making a cryogenic solid monergole propellant defined in claim 17 wherein according to steps (a) and (b) the liquid phase is encapsulated and before freezing the liquid phase, the solid phase structure is mixed therewith, and both phases are frozen together.

30. (previously presented) The method of making a cryogenic solid monergole propellant defined in claim 17 wherein according to step (a) combustion speed of the cryogenic solid monopropellant system is adjusted by selecting a special hollow space size in the solid phase structure.

31. (Currently amended) A stabilized cryogenic solid monergole propellant for a rocket motor combustion chamber equipped with an inner isolation which comprises a solid or heterogeneous quasi-monergolic fuel oxidizer combination cooled to below ambient temperature, wherein at least one reactant for preparing said propellant is an oxidizer in a liquid or gaseous phase at standard temperature, and at least one reactant for preparing said propellant is in a solid phase structure, open pore plastic foam fuel, having hollow spaces which are connected to each other, arranged at an inner isolation of the combustion chamber or completely filling the latter, the solid phase structure, open pore plastic foam fuel, having hollow spaces completely containing the liquid or gaseous oxidizer reactant cryogenically transformed and stabilized as a cryogenic solid.

32. (Previously presented) The stabilized cryogenic solid monergole propellant defined in claim 31 wherein the at least one reactant for preparing said monergole propellant in a liquid or gaseous phase at standard temperature is an emulsion of liquid components not soluble in one another.

33. (Previously presented) The stabilized cryogenic solid monergole propellant defined in claim 31 wherein the at least one reactant for preparing said propellant in a liquid or gaseous phase at standard temperature is a suspension of solid components in liquid components.

34. (Previously presented) The stabilized cryogenic solid monergole propellant defined in claim 31 wherein the at least one reactant for preparing said monergole propellant in a liquid or gaseous phase at standard temperature is a liquid impregnated packing.

35. (Canceled)

36. (Canceled)

37. (Currently amended) The stabilized cryogenic solid monergole propellant defined in claim 36 wherein the ~~foam of plastic or metal~~ open pore plastic foam fuel is a polyethylene

foam, a polyurethane foam, a HTBP foam, or a GAP foam ~~, an aluminum foam, a magnesium foam, a beryllium foam, or a mixture of said plastic foam and said metal foam~~.

38. (Previously presented) The stabilized cryogenic solid monergole propellant defined in claim 31 wherein the solid phase cryogenically transformed from the liquid or gaseous phase is comprised of a stable solid.

39. (Previously presented) The stabilized cryogenic solid monergole propellant defined in claim 38 wherein the solid phase cryogenically transformed from the liquid or gaseous phase as a stable solid is transformed oxygen, hydrocarbons, hydrogen peroxide, or an HEDM propellant.

40. (Currently amended) The stabilized cryogenic solid monergole propellant defined in claim 31 wherein the solid phase structure, open pore plastic foam fuel, having hollow spaces is comprised of a packing of optionally shaped individual pieces whose hollow spaces are connected together in which a frozen liquid oxidizer is contained as a reactant.

41. (Previously presented) The stabilized cryogenic solid monergole propellant defined in claim 40 wherein the frozen liquid reactant is not in homogeneous form but itself is a packing which is mixed into the hollow space of the first packing.

42. (Currently amended) The stabilized cryogenic solid monergole propellant defined in claim 31 wherein the solid phase structure, open pore plastic foam fuel, having hollow spaces is provided with a protective coating which chemically insulates the solid phase structure, open pore plastic foam fuel, from the reactant in the liquid or gaseous phase.